FARM DEPARTMENT.

BY W. A. PEFFER.

Dairy School at the Agricultural College.

Editor Advocate and News:—Your representative asks for a brief statement of the reasons for organizing a Dairy school at the State Agricultural College.

Kansas has the most favorable conditions for profitable dairying of any State in the Union—mild climate, short winters, rich lands, cheap feeds and good shipping facilities.

Dairying is a business that offers to Kansas farmers a good cash income the year round, a sure means of profitably marketing, in condensed form, our bulky forage and grain crops and profitable employment at all times.

The production of good butter and cheese is a business that in Kansas is capable of unlimited extension. There is a constant demand in all large cities for good butter, the mountain districts will always furnish a good market for dairy products, and England is compelled to buy millions of dollars worth every year. Owing to favorable conditions, Kansas can produce good butter cheaper than any other State and Kansas butter can be delivered to these markets in good condition for as low and often a lower freight rate than that paid by producers living close to these markets. The rate on butter from Kansas points to our best Eastern markets does not exceed 1½ cents per pound, it costs less than 3 cents per pound to deliver Kansas butter in the best English markets, and not over 2 cents per pound to place it in Rocky mountain markets.

During the past years of hard times the dairy producing sections of the United States have been the prosperous sections, and wide-awake farmers all over the country, realizing this fact, are going into dairying. It is often asked, "Is not the business going to be overdone?" Possibly it will be; but Kansas, owing to her favorable conditions, can market butter at a good profit if the price drops so low that dairymen in Eastern and Northern States will be compelled to stop making it.

Notwithstanding these favorable conditions, it is well known that a large amount of Kansas butter is sold so low that the producers get no profit from it, and that while the average yearly return from the Kansas dairy cow is less than $10, dairymen in other States under much less favorable conditions are receiving from $40 to $90 per cow each year. Every test made in America and Europe has proved that Kansas butter when properly made takes first rank and sells for highest prices, and all will admit that intelligent feeding and care will secure as great a yield from a cow in Kansas as from a cow in any other place.

The one thing lacking to make dairying most successful in Kansas and to make it one of our greatest and most profitable industries, seems to be the lack of dairy knowledge, knowledge of the profitable management of dairy farms, of how to produce most cheaply dairy feeds, of how to select, feed and breed dairy cows and of the production and handling of dairy products so as to secure top prices.

It is to furnish such information to those who want it, that the Kansas Agricultural College has established a Dairy school, and every farmer, farmer's wife, son and daughter will be welcomed there. Respectfully,

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What Manner of Man is the Farmer?

A farmer, in the full meaning of his vocation, is a man of broad views. His class rests at the bottom of the social organism. The first men were farmers. He supplies the world with raw materials for food and clothing. He is interested alike in the commerce of the world and in the trade at the nearest railway station. He is concerned in proceedings of Congress, of the State Legislature, and of the school district. He is as much related to the transportation interests of the country and of the world as in the highway between his dwelling and the place he buys his shoes. His grain is carried to the uttermost parts of the earth, and the meat from his animals feeds men in every country.

To be a farmer in the best sense is to be an educated man in the field as well as in the forum. He must understand soil elements, plan life and animal functions as well as the laws of trade, rules of business and maxims of the courts. He must be a jurist, a legislator and a tiller of the soil. He must be a big, clear-headed, full-grown, well-developed man. And that is the manner of man the farmer is.

Farmers' Institute Dates.

The Agricultural College has already assisted in a number of farmers' institutes in different parts of the State, this fall, and has promised assistance to several other institute organizations. The following are the places, dates and delegations from the faculty, for which definite arrangements have been made at this writing:

December 28.—Bendena, Profs. Cottrell, Walters.

January 19-20.—Manhattan, Profs. Campbell, Cottrell.

January 26-27.—Peabody, Profs. Campbell, Cottrell.

February 1-3.—Hiawatha, Prof. Faville.

February 10-11.—Seneca, Profs. Campbell, Cottrell, Assistant Clothier.

February 10-11.—Gardner, Profs. Faville, Fischer.

Institutes are also promised for Hackney, Haven, Hutchinson, Arlington and Cherryvale but dates and speakers have not been selected.

College speakers can be sent to a few more institutes, if applications are sent early.

Work of the Farmers' Institutes.

It is encouraging to note the proceedings of farmers' institutes now in progress in many of the States. The wide range of subjects discussed indicates indicates appreciation of the character of the farmer's occupation. One member speaks of the soil and its function, another analyzes food, a third talks about schools, a fourth takes up taxation, and so on.

These gatherings, with their social and intellectual advantages, are excellent schools. In them and by them farmers learn more of the business they are engaged in, and they learn more about themselves and their relations to one another. The women of the household and the children are taught things they ought to know, and they go home wiser and happier. The world is larger to them, society is better, and there is less on earth to be afraid of than ever before.

Well-conducted institutes teach their members to think aloud and speak in silence. To mingle with our fellows gives us better opinions of them; to listen to them we detect our own errors and mistakes, and to speak to them sets us to thinking. No man or woman can spend a day at a farmers' institute without learning something useful and knowing more about his or her calling.

About Pruning Trees.

Indiscriminate pruning is not wise, but there is usually a surplus growth that, if removed at the proper time and in a proper way, can be profitably dispensed with.

It is never good policy to remove very large branches. Safety of dwellings sometimes renders the lopping off of tops of trees growing near, but it spoils the appearance of the trees and starts them to death.

Careful examination of trees from time to time will reveal the secret of pruning. The shape of a tree and the direction of its main diversions can be altered by early and judicious pruning. Useless twigs ought to be cut away every year. Spring is the best time for this work. Use a sharp knife and cut close the main stem. The base will be covered before the growing season has passed.

When it becomes necessary to remove larger limbs, a saw is the better tool to use, because it leaves the cut rougher than a knife, and on that account paint or borax will stick better to the surface, thus preventing splits and exposures that start decay. Tests have demonstrated that rough surfaces, where limbs have been severed, do not check or crack as much as smooth ones and the cracks heal faster.

A colony of Mormon farmers have located in Mexico and report themselves well pleased with the location. They have recently purchased nearly 9,000 acres additional land, and have laid out a town-site about thirty miles south of Casas Grande on the Santa Maria river. The colonists will pay from $2 to $5 an acre for the land. A large reservoir is to be built near the town for irrigation purposes.

Have You a Silo?

A silo has come to be a necessity on many farms The more they are used, as a general rule, the better they are liked. The saving of food is quite as important as producing it, and no way has yet been discovered equal to siloing for preserving green fodder and grass.

Some labor is required, of course, in the construction of a silo, but nothing good or permanently useful was ever procured without labor. And labor in saving what has already been obtained by hard work is the most valuable of all effort. Why raise feed if we do not take care of it?

A silo well constructed and of sufficient size will hold securely and in good condition for feeding out an immense amount of fodder.

A silo built like a cylinder on end, twenty-four feet inside diameter and thirty-four feet high, will hold about 300 tons. If the fodder is cut in short pieces it may be poured into the pit by a carrier. This is not the usual form, however, most of them being made rectangular.

Two-by-four or two-by-six studding is used, standing on solid foundation. Two layers of boards with paper between them on each side of the studding will prevent freezing. The bottom ought to be cemented and drained. The top may be made to suit taste and convenience, but it must keep out air and frost.

Co-operation in Agriculture.

The farmer's comparative isolation has thus far kept him and his neighbors a mile apart in business and social relations as well as in location of dwelling place, and this fact has kept him thinking that co-operation with his fellow craftsman is impracticable as well as undesirable. And yet, every day of his life, he sees practical illustrations of the co-operative principle—the work of co-operation actually going on within range of his personal view.

Whereas once he cut his grain alone with a sickle and threshed it with a flail, now one machine cuts as much as fifteen men did then, and a single separator threshes for a whole township. When he hauls a load of grain to the railway station, or loads a bunch of cattle, he sees others of his kind doing the same thing; then waiting an hour, he sees a train load of farm produce on its way to market. And if he goes to one of the great cities he may witness the loading of an ocean steamer with grain for Europe or South Africa—grain brought from a dozen States.

He sees co-operation in his family, on his farm, in the village, in the city —everywhere.

What the farmers now need most to know is how to unite with their fellow farmers in the business of co-operative agriculture. They are learning how to trade at co-operative stores; they are studying co-operative insurance and transportation; let them study co-operative farming.

Coburn on the Hog.

Mr. Secretary Coburn, in his address at the Newton farmers' institute, touched upon the hog, as the following extracts will show:

"It has been said that in the American hog we have an automatic combined machine for reducing the bulk in corn and enhancing its value. A machine that feeds itself; puts ten bushels of corn into less space than a bushel measure, and in so doing quadruples the value of the grain. Corn loaned to a well-bred hog is cash at big interest. A good brood sow is an incarnation of safe investment—a sort of bucolic bond, the coupons of which materialize in big litters of pigs, convertible into cash on demand. Harvesters, combined mowers and reapers, when compared with the complicated and multiform machinery which is wrapped up in the bristly integuments of a healthy, well-bred pig, are insignificant inventions.

"Nowhere else as in this broad central basin of southern North America, filled with the silt of the centuries, does corn grow in such opulence. Where this cereal most abounds, there the pig flourishes and waxes fat. He sometimes squeals, but like Jeshuron of old, who waxed fat, he never kicks. A region of a monopoly of these can have all the other good things added unto it and there the seat of future empire will be established, around and from which, radiating afar, will be civilization and learning; comfort, health and wealth, through rightly-directed industry; peace and good will to men. Not paradise, but an inviting approach."

Educating the Farmers.

The old-fashioned prejudice against professional farming is passing away. Practical farmers find their best help coming from men and women who have had the benefit of training in the schools, and when one thinks the situation over it seems strange that we have been so long in coming as far as we have along these lines.

Thirty years ago farmers' institutes had not been heard of; now they are popular in all the wide-awake States. Wisconsin has an officer whose sole business it is to appoint and conduct institutes in every county in the State at least once a year. Then there is a sort of "round up" in the early spring, when a synopsis of the season's work is prepared for publication. New York farmers are now in the midst of an institute season. This work of educating the farmer is spreading and doing good as the field widens.

Kansas needs an awakening on this subject. The Agricultural college faculty, a good many years ago," began holding a series of farmers' institutes in places where the people desired them and one or more of the college men attended as helpers, and the custom is still continued. But the institute idea has not become general in this State yet. We ought to have a Department of Agriculture in charge of a man like the present Secretary Coburn, and require him to inaugurate and maintain the scheme of holding at least one farmers' institute every year in each county.

Newsy Notes for Farmers.

The Kansas State Horticultural Society meets at Topeka the 28th inst., and will be in session three days.

Nothing seems to be better for covering the wounds made in pruning than common lead paint, which is closely followed by grafting wax. The wax is superior to paint in the matter of healing, but does not last so well and is not so convenient to apply, although in warm weather, when it works well, there is little trouble in this regard.

A Canadian shepherd stopped his sheep from coughing by the use of tar. He says: I brought home a small flock of thirteen sheep last fall, and when I had them a few days I saw that almost all the old ones were coughing. I treated them to a good dose of pine tar on their noses, and made them swallow a little. I then fed twice a day raw flaxseed—a small handful to each sheep. It cured them all.

Arizona papers have been telling big stories about depredations of wild horses on crops and pastures. Something like 20,000 of these creatures, it is estimated, are now roaming the plains of that territory, and they have become serious nuisances. And this suggests an idea to the New York Times, which thinks there is some cause for surprise in the fact that at this late day, even in Arizona, an animal alien to the country can resume the habits of his almost unmeasurably remote ancestors and can multiply rapidly without care or protection of any kind.

Secretary Barnes, of the State Horticultural Society, says we ought to grow 80 per cent. of the horticultural products that we consume in Kansas, and he is right about it; but when he says: "If our housewives demanded Kansas fruits and vegetables the Kansas horticulturists would spring to the demand, and grow better produce and more of it," we draw the line. Our housewives demand Colorado potatoes, Michigan celery, New York grapes, etc., only because our Kansas horticulturists and farmers have not yet learned how to excel the foreigner in the production of these articles.

The agricultural department of the Missouri State University has arranged to give another twelve-weeks' course of free lectures—a sort of training school for farmers—beginning January 4 next. Missouri is coming to the front. Next to Kansas there is not better State in the union than is our neighbor on the east of us. She has a magnificent body of first-class farming lands, her farmers produce the best of everything in the way of grains, vegetables, fruits, live stock and hay; and her mineral resources are inexhaustible; she has an abundance of water and her climate is unsurpassed.

Writing about the quail and its habits the Chautauquan says of this well-known and popular bird: "Being eminently terrestrial, heavy snows sometimes completely bury bevies of birds, roosting, as is their wont, on the ground. They seem, however, none the